

```

MMM          MMM          AAAAAAAAAA          IIIIIIIIIII          LLL
MMM          MMM          AAAAAAAAAA          IIIIIIIIIII          LLL
MMM          MMM          AAAAAAAAAA          IIIIIIIIIII          LLL
MMMMMMMM    MMMMMMM    AAA          AAA          III          LLL
MMMMMMMM    MMMMMMM    AAA          AAA          III          LLL
MMMMMMMM    MMMMMMM    AAA          AAA          III          LLL
MMM          MMM          AAA          AAA          III          LLL
MMM          MMM          AAA          AAA          III          LLL
MMM          MMM          AAA          AAA          III          LLL
MMM          MMM          AAA          AAA          III          LLL
MMM          MMM          AAA          AAA          III          LLL
MMM          MMM          AAA          AAA          III          LLL
MMM          MMM          AAAAAAAAAAAAAAAAAA          III          LLL
MMM          MMM          AAAAAAAAAAAAAAAAAA          III          LLL
MMM          MMM          AAAAAAAAAAAAAAAAAA          III          LLL
MMM          MMM          AAA          AAA          III          LLL
MMM          MMM          AAA          AAA          III          LLL
MMM          MMM          AAA          AAA          III          LLL
MMM          MMM          AAA          AAA          III          LLL
MMM          MMM          AAA          AAA          IIIIIIIIIII          LLLLLLLLLLLLLLLLLL
MMM          MMM          AAA          AAA          IIIIIIIIIII          LLLLLLLLLLLLLLLLLL
MMM          MMM          AAA          AAA          IIIIIIIIIII          LLLLLLLLLLLLLLLLLL

```

```

NN      NN      000000      TTTTTTTTTT      IIIIII      FFFFFFFFFF      YY      YY
NN      NN      000000      TTTTTTTTTT      IIIIII      FFFFFFFFFF      YY      YY
NN      NN      00      00      TT      II      FF      YY      YY
NN      NN      00      00      TT      II      FF      YY      YY
NNNN      NN      00      00      TT      II      FF      YY      YY
NNNN      NN      00      00      TT      II      FF      YY      YY
NN      NN      00      00      TT      II      FFFFFFFF      YY      YY
NN      NN      00      00      TT      II      FFFFFFFF      YY      YY
NN      NN      00      00      TT      II      FF      YY      YY
NN      NNNN      00      00      TT      II      FF      YY      YY
NN      NNNN      00      00      TT      II      FF      YY      YY
NN      NN      00      00      TT      II      FF      YY      YY
NN      NN      00      00      TT      II      FF      YY      YY
NN      NN      00      00      TT      II      FF      YY      YY
NN      NN      000000      TT      IIIIII      FF      YY      YY
NN      NN      000000      TT      IIIIII      FF      YY      YY

```

```

LL      IIIIII      SSSSSSSS
LL      IIIIII      SSSSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SSSSSS
LL      II      SSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LLLLLLLLLLLL      IIIIII      SSSSSSSS
LLLLLLLLLLLL      IIIIII      SSSSSSSS

```



```
1 0001 0 MODULE MAIL$NOTIFY( %TITLE 'NOTIFY LOGGED ON USER OF NEW MAIL'
2 0002 0 IDENT = 'V04-000' ) =
3 0003 1 BEGIN
4 0004 1
5 0005 1
6 0006 1 *****
7 0007 1 *
8 0008 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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25 0025 1 *
26 0026 1 *
27 0027 1 *****
28 0028 1
29 0029 1
30 0030 1 ++
31 0031 1 FACILITY: VAX/VMS MAIL UTILITY
32 0032 1
33 0033 1 ABSTRACT: Notify logged on user that new mail exists
34 0034 1
35 0035 1 ENVIRONMENT: NATIVE/USER MODE
36 0036 1
37 0037 1 AUTHOR: Len Kawell, CREATION DATE: 21-APR-1978
38 0038 1
39 0039 1 MODIFIED BY:
40 0040 1
41 0041 1 V03-007 BLS0255 Benn Schreiber 28-Dec-1983
42 0042 1 Print time in message if enabled in system flags
43 0043 1
44 0044 1 V03-006 BLS0241 Benn Schreiber 26-Sep-1983
45 0045 1 Enable cluster $BRKTHRU.
46 0046 1
47 0047 1 V03-005 BLS0229 Benn Schreiber 16-Jul-1983
48 0048 1 Set CARCON in $BRKTHRU. Set broadcast class to MAIL
49 0049 1
50 0050 1 V03-004 BLS0224 Benn Schreiber 2-Jun-1983
51 0051 1 Use new $BRKTHRU service
52 0052 1
53 0053 1 V03-003 BLS0211 Benn Schreiber 13-Mar-1983
54 0054 1 Raise/drop OPER/WORLD privs around this routine. Pass
55 0055 1 in as an argument the sender's name.
56 0056 1
57 0057 1 V03-002 BLS0197 Benn Schreiber 9-Dec-1982
```


MAIL\$NOTIFY
V04-000

NOTIFY LOGGED ON USER OF NEW MAIL

B 1
16-Sep-1984 01:13:46
14-Sep-1984 12:42:29

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[MAIL.SRC]NOTIFY.B32;1 Page 2 (1)

:	58	0058	1	:		
:	59	0059	1	:		
:	60	0060	1	:		
:	61	0061	1	:		
:	62	0062	1	:		
:	63	0063	1	:	--	

Use MAIL\$Q_FULLUSER to get personal name

V03-001 BLS0177 Benn Schreiber 21-Jun-1982

Use symbolic values for username length. Tell node name if translation for SYS\$NODE exists.


```
65 0064 1 |
66 0065 1 | TABLE OF CONTENTS:
67 0066 1 |
68 0067 1 |
69 0068 1 |
70 0069 1 | INCLUDE FILES:
71 0070 1 |
72 0071 1 |     LIBRARY 'SYSS$LIBRARY:LIB';
73 0072 1 |     REQUIRE 'SRC$:MAILREQ';
74 0218 1 |     LIBRARY 'LIB$:MAILDEF';
75 0219 1 |
76 0220 1 | MACROS:
77 0221 1 |
78 0222 1 |
79 0223 1 |
80 0224 1 | EQUATED SYMBOLS:
81 0225 1 |
82 0226 1 | LITERAL
83 0227 1 |     BELL      = 7;
84 0228 1 |
85 0229 1 | EXTERNAL ROUTINE
86 0230 1 |     MAIL$GETMSG,
87 0231 1 |     MAIL$UP_PRIV,
88 0232 1 |     MAIL$DOWN_PRIV;
89 0233 1 |
90 0234 1 | OWN STORAGE:
91 0235 1 |
92 0236 1 | BIND
93 0237 1 |     BELL_STR = UPLIT(BYTE(1,7));
94 0238 1 |
95 0239 1 | EXTERNAL REFERENCES:
96 0240 1 |
97 0241 1 | EXTERNAL
98 0242 1 |     MAIL$GL_SYSFLAGS : $BBLOCK,
99 0243 1 |     MAIL$Q_SYSNODE: $BBLOCK;
```

```
! ASCII bell
! Get message text
! Raise privileges
! and lower them
! ASCII BELL
! System control flags
! Translation of SYSS$NODE
```



```
101 0244 1 GLOBAL ROUTINE MAIL$NOTIFY(USERNAME, FROMDESC) : NOVALUE =
102 0245 1
103 0246 1 ++
104 0247 1 FUNCTIONAL DESCRIPTION:
105 0248 1     Loops through all the processes on the system, and if a process's
106 0249 1     user name matches the specified username, and the process is an
107 0250 1     interactive process, a new mail message is broadcast to the terminal.
108 0251 1
109 0252 1 INPUTS:
110 0253 1
111 0254 1     USERNAME = Address of username descriptor.
112 0255 1
113 0256 1     FROMDESC = Sender's username descriptor.
114 0257 1
115 0258 1 OUTPUTS:
116 0259 1
117 0260 1     New mail message broadcast to user's terminal, if logged on.
118 0261 1 --
119 0262 2 BEGIN
120 0263 2 LOCAL
121 0264 2     MSG_BUFF:      VECTOR[MAIL$K_INBUFSZ], ! Message buffer
122 0265 2     MSG_BUFF_DESC: $BBLOCK[8],           ! Message buffer descriptor
123 0266 2     DTIM,
124 0267 2     CLU_FLAG,
125 0268 2     STATUS;                ! Routine status
126 0269 2
127 0270 2 DTIM = .MAIL$GL SYSFLAGS[SYSE_V NOTIFY TIME];
128 0271 2 MSG_BUFF_DESC[DSCSW_LENGTH] = .MAIL$K_INBUFSZ; ! Create message buffer desc
129 0272 2 MSG_BUFF_DESC[DSCSA_POINTER] = MSG_BUFF;      !
130 0273 2 IF .MAIL$Q SYSNODE[DSCSW_LENGTH] NEQ 0
131 P 0274 2     THEN $FAO(MAIL$GETMSG((IF .DTIM THEN MAIL$ NOTIFY30
132 P 0275 2     ELSE MAIL$ NOTIFY10)),
133 P 0276 2     MSG_BUFF_DESC,
134 P 0277 2     MSG_BUFF_DESC,
135 P 0278 2     BELC_STR, MAIL$Q SYSNODE,
136 0279 3     FROMDESC, 0)
137 P 0280 2     ELSE $FAO(MAIL$GETMSG((IF .DTIM THEN MAIL$ NOTIFY40
138 P 0281 2     ELSE MAIL$ NOTIFY20)),
139 P 0282 2     MSG_BUFF_DESC,
140 P 0283 2     MSG_BUFF_DESC,
141 0284 2     BELC_STR, .FROMDESC, 0);
142 0285 2
143 0286 2 CLU_FLAG = 0;
144 0287 2 IF .MAIL$GL SYSFLAGS[SYSE_V CLU BRKTHRU]
145 0288 2     THEN CLU_FLAG = BRK$M_CLUSTER;
146 0289 2
147 0290 3 MAIL$UP_PRIV((1^$BITPOSITION(PRV$V WORLD) ! Enable needed privileges
148 0291 2     OR 1^$BITPOSITION(PRV$V_OPER)), 0);
149 0292 2
150 0293 2 ! Send the message
151 0294 2
152 P 0295 2 $BRKTHRUW(MSGBUF=MSG_BUFF_DESC,
153 P 0296 2     SENDTO=.USERNAME,
154 P 0297 2     SNTYP=BRK$C_USERNAME,
155 P 0298 2     REQID=BRK$C_MAIL,
156 P 0299 2     FLAGS=.CLU_FLAG,
157 P 0300 2     CARCON=%C'-',
```


MAIL\$NOTIFY
V04-000

NOTIFY LOGGED ON USER OF NEW MAIL

E 1
16-Sep-1984 01:13:46
14-Sep-1984 12:42:29

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[MAIL.SRC]NOTIFY.B32;1 Page 5
(3)

```
: 158      0301 2      TIMEOUT=10);  
: 159      0302 2  
: 160      0303 2 MAIL$DOWN_PRIV();  
: 161      0304 1 END;
```

!Disable privs as needed

.TITLE MAIL\$NOTIFY NOTIFY LOGGED ON USER OF NEW MAIL
.IDENT \V04-000\

.PSECT \$CODE\$,NOWRT,2

07 01 00000 P.AAA: .BYTE 1, 7 ;

BELL_STR= P.AAA
.EXTRN MAIL\$GETMSG, MAIL\$UP_PRIV,
.EXTRN MAIL\$DOWN_PRIV, MAIL\$GL_SYSFLAGS
.EXTRN MAIL\$Q_SYSNODE, SYSS\$FAO
.EXTRN SYSS\$BRKTHRU

50

67

04

```
57 00000000G 00FC 00000  
56 00000000G 00 9E 00002  
55 00000000G 00 9E 00009  
54 00000000G 00 9E 00010  
53 00000000G 00 9E 0001B  
5E F7F8 CE 9E 00022  
01 02 02 EF 00027  
6E 0200 8F B0 0002C  
AE 08 AE 9E 00031  
63 B5 00036  
2A 13 00038  
7E D4 0003A  
08 AC DD 0003C  
53 DD 0003F  
54 DD 00041  
10 AE 9F 00043  
14 AE 9F 00046  
08 50 E9 00049  
007EDF80 8F DD 0004C  
06 11 00052  
007EDE28 8F DD 00054 1$:  
65 01 FB 0005A 2$:  
50 DD 0005D  
66 07 FB 0005F  
26 11 00062  
7E D4 00064 3$:  
08 AC DD 00066  
54 DD 00069  
0C AE 9F 0006B  
10 AE 9F 0006E  
08 50 E9 00071  
007EDF88 8F DD 00074  
06 11 0007A  
007EDE30 8F DD 0007C 4$:  
65 01 FB 00082 5$:  
50 DD 00085  
66 06 FB 00087
```

```
.ENTRY MAIL$NOTIFY, Save R2,R3,R4,R5,R6,R7  
MOVAB MAIL$GL_SYSFLAGS, R7  
MOVAB SYSS$FAO, R6  
MOVAB MAIL$GETMSG, R5  
MOVAB BELL_STR, R4  
MOVAB MAIL$Q_SYSNODE, R3  
MOVAB -2056(SP), SP  
EXTZV #2, #1, MAIL$GL_SYSFLAGS, DTIM  
MOVW #512, MSG_BUFF_DESC  
MOVAB MSG_BUFF, MSG_BUFF_DESC+4  
TSTW MAIL$Q_SYSNODE  
BEQL 3$  
CLRL -(SP)  
PUSHL FROMDESC  
PUSHL R3  
PUSHL R4  
PUSHAB MSG_BUFF_DESC  
PUSHAB MSG_BUFF_DESC  
BLBC DTIM, 1$  
PUSHL #8314752  
BRB 2$  
PUSHL #8314408  
CALLS #1, MAIL$GETMSG  
PUSHL R0  
CALLS #7, SYSS$FAO  
BRB 6$  
CLRL -(SP)  
PUSHL FROMDESC  
PUSHL R4  
PUSHAB MSG_BUFF_DESC  
PUSHAB MSG_BUFF_DESC  
BLBC DTIM, 4$  
PUSHL #8314760  
BRB 5$  
PUSHL #8314416  
CALLS #1, MAIL$GETMSG  
PUSHL R0  
CALLS #6, SYSS$FAO
```

0244

0270

0271

0272

0273

0279

0284

MAIL\$NOTIFY
V04-000

NOTIFY LOGGED ON USER OF NEW MAIL

F 1
16-Sep-1984 01:13:46
14-Sep-1984 12:42:29

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[MAIL.SRC]NOTIFY.B32;1 Page 6
(3)

05	67		52	D4	0008A	6\$:	CLRL	CLU_FLAG	:	0286
	52	0800	01	E1	0008C		BBC	#1, MAIL\$GL_SYSFLAGS, 7\$	:	0287
			8F	3C	00090		MOVZWL	#2048, CLU_FLAG	:	0288
			7E	D4	00095	7\$:	CLRL	-(SP)	:	0290
00000000G	00	00050000	8F	DD	00097		PUSHL	#327680	:	
			02	FB	0009D		CALLS	#2, MAIL\$UP_PRIV	:	
			7E	7C	000A4		CLRG	-(SP)	:	0301
			0A	DD	000A6		PUSHL	#10	:	
			02	DD	000A8		PUSHL	#2	:	
			52	DD	000AA		PUSHL	CLU_FLAG	:	
			20	DD	000AC		PUSHL	#32	:	
	7E		02	7D	000AE		MOVQ	#2, -(SP)	:	
		04	AC	DD	000B1		PUSHL	USERNAME	:	
		24	AE	9F	000B4		PUSHAB	MSG_BUFF_DESC	:	
			7E	D4	000B7		CLRL	-(SP)	:	
00000000G	00		0B	FB	000B9		CALLS	#11, SYSSBRKTHRUW	:	
00000000G	00		00	FB	000C0		CALLS	#0, MAIL\$DOWN_PRIV	:	0303
			04	000C7			RET		:	0304

; Routine Size: 200 bytes, Routine Base: \$CODE\$ + 0002

MAIL\$NOTIFY
V04-000

NOTIFY LOGGED ON USER OF NEW MAIL

G 1
16-Sep-1984 01:13:46
14-Sep-1984 12:42:29

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[MAIL.SRC]NOTIFY.B32;1 Page (4) 7

: 163
: 164
0305 1 END
0306 0 ELUDOM

PSECT SUMMARY

: Name Bytes Attributes
: \$CODE\$ 202 NOVEC,NOWRT, PD, EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

Library Statistics

: File Total Symbols Loaded Percent Pages Mapped Processing Time
: \$255\$DUA28:[SYSLIB]LIB.L32:1 18619 20 0 1000 00:01.4
: \$255\$DUA28:[MAIL.OBJ]MAILDEF.L32:1 457 6 1 26 00:00.4

COMMAND QUALIFIERS

: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:NOTIFY/OBJ=OBJ\$:NOTIFY MSRC\$:NOTIFY/UPDATE=(ENH\$:NOTIFY)

: Size: 200 code + 2 data bytes
: Run Time: 00:04.9
: Elapsed Time: 00:19.2
: Lines/CPU Min: 3777
: Lexemes/CPU-Min: 17641
: Memory Used: 87 pages
: Compilation Complete

0230 AH-BT13A-SE
VAX/VMS V4.0

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